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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

OSMAN, RAMY M

ART UNIT	PAPER NUMBER
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2157

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/884,289		BRANNOCK, KIRK D.	
	Examiner		Art Unit	
	Ramy M Osman		2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10,13,14 and 17-30 is/are rejected.
- 7) ☐ Claim(s) 11,12,15 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of the Claims

1. This communication is responsive to the amendment filed on January 10, 2005. Claims 7,11,15,17,20 and 29 were amended. No claims were newly added or cancelled. Claims 1-30 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. **Claims 1-7,9,17-24 and 26-29 rejected under 35 U.S.C. 102(a) as being anticipated by Ha (US Patent No 6,175,919).**

4. In reference to claims 1,9,17,22,24,26 and 29, Ha teaches a method, a computer system and a non-volatile memory component comprising:

loading platform firmware during a pre-boot phase of a computer system by, executing a first portion of platform firmware code that is stored locally in the computer system (column 2 lines 40-60, column 5 lines 1-20 and claim 3); retrieving a second portion of platform firmware code from a remote firmware storage device; and executing the second portion of platform firmware code (column 2 lines 1-40, column 3 lines 45-65, column 4 lines 5-20 & 40-55, column 5 lines 5-25 and claims 1-3).

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5. In reference to claim 2,23 and 28, Ha teaches the method, system and non-volatile memory of claims 1,22 and 26 respectively, wherein execution of the first portion of platform firmware code performs the functions of:

initializing a processor chipset and system memory; initializing a network interface; and establishing a network communication link with a network server via which the remote firmware storage device may be accessed (column 2 lines 40-60 and column 5 lines 1-15; the limitations of this claim are inherent in Power-On-Self-Test)

6. In reference to claim 3, Ha teaches the method of claim 2, wherein execution of the first portion of platform firmware code further performs the function of requesting the network firmware server to send a particular set of platform firmware code corresponding to the second portion of platform firmware code that is stored in a firmware file on the remote firmware storage device over the network communication link to the computer system (column 4 lines 54-67, column 5 lines 1-20 and claims 1-3).

7. In reference to claims 4-6, Ha teaches the method of claim 3, further comprising determining a location of the firmware file on the remote firmware storage device;

wherein the location of the firmware file is determined by: passing platform identification information to the network server, and determining the location of the firmware file based on the platform identification information passed to the network server; (column 4 lines 54-67, column 5 lines 1-20 and claims 1-3) and

wherein the platform identification information comprises one of a processor identification code corresponding to a processor for the computer system or a model number for the computer system. (column 4 lines 54-67, column 5 lines 1-20 and claims 1-3)

8. In reference to claim 7, Ha teaches the method of claim 3, further comprising:

creating configuration information that maps a pointer to an appropriate set of platform firmware code for the computer system with a network identifier for the computer system;

sending a message to the network server requesting the network server to send back the appropriate set of platform firmware code;

extracting the network identifier from the message sent to the network server; and

locating the appropriate set of platform firmware code via the pointer. column 4 lines 54-67, column 5 lines 1-20 and claims 1-3; the limitations of this claim are inherent in sending a message to a host/server).
9. In reference to claims 18 and 27, Ha teaches the method and non-volatile memory of claims 17 and 26 respectively, wherein the first portion of platform code is stored in a rewritable memory device operatively coupled to a primary processor for the computer system and updating the platform firmware code comprises rewriting the rewritable memory device; flash ROM component (column 3 lines 55-65).
10. In reference to claim 19, Ha teaches the method of claim 17, further comprising determining whether or not an existing set of platform firmware code needs to be updated and updating the existing set of platform firmware code if it is determined the existing set of platform firmware code needs to be updated (column 4 lines 46-50).
11. In reference to claim 21, it is inherent that firmware is stored in a CMOS memory in which computer configuration information is stored (column 3 lines 24-50).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 8,10,13,14,25 and 30 rejected under 35 U.S.C. 103(a) as being unpatentable over Ha (US Patent No 6,175,919) in view of Rasmussen (US Patent No 6,640,334).

14. In reference to claim 8, Ha teaches the method of claim 2 above. Ha fails to explicitly teach wherein the network firmware server is accessed via an Internet-based network communication link, further comprising: storing network location information address corresponding to the network firmware server on a local storage device; and using the network location information to access the network firmware server. However, Rasmussen teaches accessing server over the internet for firmware updating (column 1 lines 5-25 and column 3 lines 1-5). It is inherent in Rasmussen that server address would be stored locally and used to access the server.

It would have been obvious for one of ordinary skill in the art to modify Ha wherein the network firmware server is accessed via an Internet-based network communication link, further comprising: storing network location information address corresponding to the network firmware server on a local storage device; and using the network location information to access the network firmware server as per the teachings of Rasmussen. One would have been motivated to

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do so because updating software or firmware remotely via the Internet is a convenience of modern communication networks.

15. In reference to claims 10,25 and 30, Ha teaches the method, system and non-volatile memory of claims 9,22 and 26 above. Ha fails to explicitly teach wherein the second portion of platform firmware code is stored in a firmware volume (FV), and execution of the driver publishes an FV interface protocol instance that informs the pre-boot phase service that it can access the second portion of platform firmware code via the driver. However, Rasmussen teaches a second portion of firmware code is stored in a buffer volume thus triggering execution of the second portion for the purpose of remotely updating firmware (Abstract and column 3 line 45 – column 4 line 20).

It would have been obvious for one of ordinary skill in the art to modify Ha by making the second portion of firmware code stored in a buffer volume thus triggering execution of the second portion as per the teachings of Rasmussen for the purpose of remotely updating firmware via the Internet.

16. In reference to claims 13 and 14, Ha teaches the method as recited in claim 1 above. Ha fails to explicitly teach a firmware volume comprising a storage device in which a second portion of platform firmware is stored; and wherein execution of the driver publishes an FV interface protocol instance that informs a pre-boot phase service that it can access the second portion of platform firmware code via the driver. However, Rasmussen teaches a second portion of firmware code is stored in a buffer volume thus triggering execution of the second portion for the purpose of remotely updating firmware (Abstract and column 3 line 45 – column 4 line 20).

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It would have been obvious for one of ordinary skill in the art to modify Ha by making the second portion of firmware code stored in a buffer volume thus triggering execution of the second portion as per the teachings of Rasmussen for the purpose of remotely updating firmware via the Internet.

Allowable Subject Matter

17. Claims 11,12,15 and 16 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

18. The following is a statement of reasons for the indication of allowable subject matter:

The below indicated limitations if written into their independent claims would render the claims patentable over the cited art due to the novelty of the subject matter:

- interface protocol instance comprises a software abstraction that enables consumers of firmware access to the firmware volume without requiring those consumers to know where or how the firmware code is stored in the firmware volume

- interface protocol instance corresponding to a first firmware volume, further comprising:

- loading and executing the first portion of the second portion of firmware code, thereby causing a second driver to be loaded that publishes a second FV interface protocol instance that enables access to a second firmware volume; and

retrieving a second portion of the second portion of firmware code from the second firmware volume via the second FV interface protocol instance.

Response to Amendment

19. Examiner acknowledges the amendment filed on January 10, 2005. Applicant amended claims 7,11,15,17,20 and 29.

20. Examiner acknowledges the amendments to the specification.

Response to Arguments

21. Applicant's arguments filed 1/10/2005 have been fully considered but they are not persuasive.

22. Applicant argues that Ha does not anticipate claim 1 because Ha does not retrieve and execute a second portion of platform firmware code from a remote firmware storage device during the same pre-boot phase of a computer system.

Firstly, the claims simply state 'a first portion of firmware' and 'a second portion of firmware', and fail to identify the first and second portions as part of the same firmware. 'First portion' and 'second portion' simply mean two different firmwares. It is broadly interpreted in this manner, and therefore the upgraded portion of Ha is regarded as the second portion.

Secondly, the claim fails to state that the second portion is loaded and executed "during the *same* pre-boot phase". Furthermore, the structure of the claim shows that only the first

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portion of the firmware is loaded and executed during a pre-boot phase. This is due to the position of the comma in the first limitation indicating that it is the first portion that loads during pre-boot. The first limitation is then ended with a semi-colon and then is followed by a second limitation regarding the second portion of firmware. Therefore the second portion is not bound to the 'pre-boot' due to the structure of the claim.

23. Applicant argues that the amended claim 17, which contains the new limitation "the remaining portion of platform firmware code including the updated set of firmware code", is not anticipated by Ha.

However, the amended claim fails to state that the remaining portion of the firmware also includes part of the original non-updated firmware. The claim is broad and 'the remaining portion' is broadly interpreted to mean the replacement firmware. Therefore, according to Ha, when the firmware is replaced, that replaced firmware then becomes the "remaining portion".

24. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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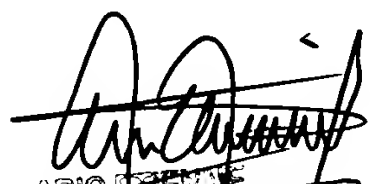
however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramy M. Osman whose telephone number is (571) 272-4008. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RMO
April 15, 2005


ARIO ETIENNE
SENIOR PATENT EXAMINER
APR 15 2005